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**ASPECTS OF THE ECOLOGY OF FERAL GOATS  
(CAPRA HIRCUS. L) IN THE MAHOENUI GIANT  
WETA RESERVE**

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Frontispiece. Male feral goat (R7) overlooking the Mahoenui giant weta reserve (February 1993)

### Abstract

A field study of feral goats (*Capra hircus*) was carried out in the Mahoenui giant weta reserve, southern King Country, New Zealand, from March 1992 to February 1993. The reserve supports the main population of the undescribed Mahoenui giant weta (*Deinacrida* sp.). The dominant woody browse plant in the reserve, gorse (*Ulex europaeus*), provides protection, shelter and food for weta. The study aimed to provide information on aspects of the ecology of feral goats to better understand their role in the reserve, and to assess any possible effects on weta survival.

The activities, foraging behaviour and broad diet of feral goats within the reserve were studied by means of direct observation and autopsies. Gorse was adequate for goat growth only during late spring/summer, and became a maintenance feed at other times of the year. Goat browsing has probably slowed down the rate of succession from gorse to native forest cover but not prevented it. Successional changes may be detrimental to weta survival.

Ranges of male and female herds overlapped at all times of the year and animals from several ranges occupied common bedding sites during the year. Feeding (grazing and browsing) was the dominant activity of adult feral goats in the reserve. Females spent more time feeding than males. Grazing and browsing changed seasonally for both sexes, with grazing generally decreasing from autumn to summer, and browsing increasing from summer to spring. In every season females spent more time grazing than males, but males browsed more than females. Greater use of browse by the bucks may be an affect of the presence of the does.

Overall goats appear to have little direct influence on weta. A possible reduction in the rate of successional change is probably the most important effect of goats in the reserve. However, in the absence of direct manipulation of the gorse, goats can not prevent succession from occurring.

Monitoring systems for the feral goat population and the vegetation community structure are recommended.

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## CONTENTS

	PAGE
TITLE PAGE	i
ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
CONTENTS	v
LIST OF FIGURES	viii
LIST OF TABLES	x
LIST OF PLATES	xi
<b>GENERAL INTRODUCTION</b>	<b>1</b>
GORSE, WETA AND GOATS	2
GENERAL AIMS	3
STUDY AREA	4
INTRODUCED ANIMALS	4
VEGETATION	4
NATIVE ANIMALS	5
<b>CHAPTER 1 : GORSE HABIT AND NUTRIENT CONTENT</b>	
1.1 INTRODUCTION	9
1.2 METHODS	9
1.21 VEGETATION TRANSECTS	9
1.22 NUTRITIONAL VALUE	14
1.3 RESULTS	15
1.31 VEGETATION TRANSECTS	15
1.32 NUTRITIONAL VALUE	15
1.4 DISCUSSION	20
1.41 VEGETATION TRANSECTS	20
1.42 NUTRITIONAL VALUE	21
<b>CHAPTER 2 : HOME RANGE</b>	
2.1 INTRODUCTION	24
2.2 METHODS	24
2.3 RESULTS	25

	PAGE
2.4 DISCUSSION	31
<b>CHAPTER 3 : ACTIVITY BUDGETS</b>	
3.1 INTRODUCTION	34
3.2 METHODS	34
3.3 RESULTS	35
3.31 GRAZING	35
3.32 BROWSING	45
3.33 INTENSITY OF FEEDING	45
3.34 RESTING	48
3.35 STANDING	48
3.36 MAINTENANCE	48
3.37 AGONISM	48
3.38 SEXUAL ACTIVITY	48
3.4 DISCUSSION	53
3.41 SEASONAL FEEDING PATTERNS	53
3.42 INTENSITY OF FEEDING	56
3.43 EFFECTS OF DOMESTIC CATTLE ON GOAT FEEDING	57
3.44 RESTING/STANDING	58
3.45 AGONISM	58
3.46 SEXUAL ACTIVITY	59
<b>CHAPTER 4 : AUTOPSY DATA</b>	
4.41 INTRODUCTION	60
4.42 METHODS	60
4.43 RESULTS	61
4.31 RUMEN CONTENTS	61
4.32 POPULATION BIOLOGY	62
4.321 AGE STRUCTURE	62
4.322 REPRODUCTION	62
4.4 DISCUSSION	67
4.41 RUMEN CONTENTS	67
4.42 POPULATION BIOLOGY	68



	PAGE
4.421 AGE STRUCTURE	68
4.422 REPRODUCTION	69
<b>GENERAL CONCLUSION</b>	70
FUTURE WORK	71
IMPLICATIONS FOR MANAGEMENT	72
<b>REFERENCES</b>	73
<b>APPENDIX 1</b>	85



**LIST OF FIGURES**

FIGURE	PAGE
1.1 Map of study area	10
1.2 Types of shaped (goat browsed) gorse bushes	11
1.3 Percentage of each gorse bush type and pasture for each vegetation transect	16
1.4 Mean percentage of each bush type and pasture for the eight vegetation transects combined	17
2.1 Seasonal variation in range size from annual mean	28
2.2 Annual range boundaries of male and female goat herds	29
2.3 Range boundaries of four (2♂ and 2♀) feral goat herds	30
3.1 Seasonal proportion of grazing and browsing by male and female feral goats	37
3.2 Daily activity budget for male and female feral goats during autumn	38
3.3 Daily activity budget for male and female feral goats during winter	39
3.4 Daily activity budget for male and female feral goats during spring	40
3.5 Daily activity budget for male and female feral goats during summer	41
3.6 Monthly feeding pattern for male and female feral goats	42
3.7 Frequency of feeding and resting by feral goats	43
3.8 Proportion of the day spent feeding by male and female feral goats	44
3.9 Intensity of feeding by male feral goats	46
3.10 Intensity of feeding by female feral goats	47
4.1 Mean percentage of feed types in the rumen contents of autopsied goats	63
4.2 Mean percentage of feed types in the rumen contents of male and female autopsied goats	64

FIGURE	PAGE
4.3 Age structure of goats autopsied during winter and summer	65
4.4 Age structure of autopsied goats	66

**LIST OF TABLES**

TABLE	PAGE
1.1 Macro-element chemical composition of gorse	18
1.2 Micro-element chemical composition of gorse	19
2.1a Seasonal range size for individual goats (autumn and winter)	26
2.1b Seasonal range size for individual goats (spring and summer)	27
3.1 Percentage time spent in each activity by male and female feral goats	36

LIST OF PLATES

PLATE		PAGE
Frontispiece	Male feral goat (R7) overlooking the Mahoenui giant weta reserve	ii
1	Main observation area	6
2	North-west side of the Mahoenui giant weta reserve	6
3	Feral goats grazing	7
4	Feral goats in forest remnant	7
5	Mahoenui giant weta (♀)	8
6	Female Mahoenui giant weta hiding in a gorse bush during daylight	8
7	Type 1 gorse bush	12
8	Type 2 gorse bush	12
9	Type 3 gorse bush	13
10	Effect of feral goat browsing on gorse in the Mahoenui giant weta reserve	13
11	Male feral goats resting at one of the bedding sites in the Mahoenui giant weta reserve	33
12	Male feral goat (R1) grazing	50
13	Male feral goat (1H) browsing	50
14	Signs of goat browsing on gorse	51
15	Male feral goats fighting during the rut	52